

# SANITARY SEWERS

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Note: Projects with \$0 total funding are active capital projects funded in prior CIP's that do not require additional resources.

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2020 - FY 2029
Sanitary Sewers											
Sanitary Sewers											
AlexRenew Wastewater Treatment Plant Capacity	0	0	0	0	0	12,850,000	13,250,000	13,750,000	0	0	39,850,000
Capital Support of CSO Mitigation Projects	1,355,990	0	0	0	0	0	0	0	0	0	1,355,990
Citywide Sewershed Infiltration & Inflow	0	3,075,000	2,850,000	4,000,000	0	0	0	0	0	0	9,925,000
Combined Sewer Assessment & Rehabilitation	0	2,550,000	2,550,000	0	0	0	0	0	0	0	5,100,000
Reconstructions & Extensions of Sanitary Sewers	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	9,000,000
Sanitary Sewers Total	2,255,990	6,525,000	6,300,000	4,900,000	900,000	13,750,000	14,150,000	14,650,000	900,000	900,000	65,230,990
Grand Total	2,255,990	6,525,000	6,300,000	4,900,000	900,000	13,750,000	14,150,000	14,650,000	900,000	900,000	65,230,990

## Sanitary Sewers Ten-Year Plan

### Approved FY 2020 – FY 2029 Capital, Operating and Debt Service

Sanitary Sewer Rate	FY 2019	FY 2020 Approved	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Total FY 20-29
Sanitary Sewer Rate (\$ per 1,000 gallons)	\$1.82	\$2.28	\$2.28	\$2.28	\$2.31	\$2.35	\$2.38	\$2.42	\$2.46	\$2.49	\$2.53	
Proposed Rate Increase	25.0%	0.0%	0.0%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	
New Sanitary Sewer Rate	\$2.28	\$2.28	\$2.28	\$2.31	\$2.35	\$2.38	\$2.42	\$2.46	\$2.49	\$2.53	\$2.57	

Revenues	FY 2019	FY 2020 Approved	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Total FY 20-29
Sewer Line Maintenance Fee	11,167,547	11,257,547	11,341,979	11,598,449	11,860,719	12,128,920	12,403,185	12,683,652	12,970,461	13,263,755	13,563,682	123,072,348
Sewer Connection Fee	2,200,000	2,310,000	2,425,500	2,546,775	2,674,114	2,807,819	2,920,132	3,036,938	3,158,415	3,284,752	3,416,142	28,580,586
New Debt Issuance	15,050,000	0	0	0	0	0	4,850,000	12,250,000	12,750,000	0	0	29,850,000
Fund Balance	0	0	0	0	0	0	0	0	0	0	0	0
Use of Fund Balance	0	0	4,300,000	4,000,000	0	0	0	0	0	0	0	8,300,000
Interjurisdictional Contributions	0	0	0	0	0	0	0	0	0	0	0	0
State CSO Capital Share	12,000,000	0	0	0	0	0	0	0	0	0	0	0
<b>Total Revenues</b>	<b>40,417,547</b>	<b>13,567,547</b>	<b>18,067,479</b>	<b>18,145,224</b>	<b>14,534,833</b>	<b>14,936,739</b>	<b>20,173,317</b>	<b>27,970,589</b>	<b>28,878,876</b>	<b>16,548,507</b>	<b>16,979,824</b>	<b>189,802,934</b>

<b>All Operating</b>	7,436,609	7,511,005	7,790,093	7,989,908	8,195,306	8,406,455	8,620,946	8,841,309	9,067,711	9,300,326	9,539,335	85,262,394
<b>All Capital Projects</b>	28,807,592	3,453,193	7,590,400	7,408,800	6,054,400	2,102,200	15,002,400	15,455,100	16,010,300	2,318,200	2,379,000	77,773,993
<b>All Debt Service</b>	2,818,862	2,603,349	2,678,122	2,546,696	1,762,141	2,017,936	2,157,556	3,091,754	4,220,385	4,104,262	4,221,934	29,404,134
<b>Total Expenditures</b>	<b>39,063,063</b>	<b>13,567,547</b>	<b>18,058,615</b>	<b>17,945,403</b>	<b>16,011,847</b>	<b>12,526,591</b>	<b>25,780,902</b>	<b>27,388,163</b>	<b>29,298,395</b>	<b>15,722,788</b>	<b>16,140,269</b>	<b>192,440,521</b>

Operating Costs	FY 2019	FY 2020 Approved	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Total FY 20-29
T&ES Personnel Charges (incl. Worker's Comp)	3,285,458	3,348,513	3,448,968	3,552,437	3,659,011	3,768,781	3,881,844	3,998,300	4,118,249	4,241,796	4,369,050	38,386,949
DEC Personnel Charges	45,353	47,138	48,552	50,009	51,509	53,054	54,646	56,285	57,974	59,713	61,504	540,384
Professional Services												
Additional Personnel & Consulting Services	693,100	404,490	519,625	535,213	551,270	567,808	584,842	602,387	620,459	639,073	658,245	5,683,412
Leaf Collection in CSO Areas	0	250,000	257,500	265,225	273,182	281,377	289,819	298,513	307,468	316,693	326,193	2,865,970
Fat, Oil, Grease (FOG Program)	100,000	200,000	206,000	212,180	218,545	225,102	231,855	238,810	245,975	253,354	260,955	2,292,776
Sanitary Sewer Capacity Study - Flow Metering, Sewer Modeling, CMOM	450,000	463,500	470,453	477,509	484,672	491,942	499,321	506,811	514,413	522,129	529,961	4,960,711
Sewer Billing	150,000	170,000	172,550	175,138	177,765	180,432	183,138	185,885	188,674	191,504	194,376	1,819,463
Infrastructure Repairs												
Sewer Jet Cleaning	251,206	260,000	263,900	267,859	271,876	275,955	280,094	284,295	288,560	292,888	297,281	2,782,708
Annual CCTV of Sewers	317,368	325,000	329,875	334,823	339,845	344,943	350,117	355,369	360,700	366,110	371,602	3,478,385
Heavy Cleaning of Sewers	293,253	315,000	319,725	324,521	329,389	334,330	339,344	344,435	349,601	354,845	360,168	3,371,357
Equipment Replacement	170,534	66,800	67,802	68,819	69,851	70,899	71,963	73,042	74,138	75,250	76,378	714,942
Corrective Maintenance	85,168	147,000	149,205	151,443	153,715	156,020	158,361	160,736	163,147	165,594	168,078	1,573,300
Other Non-Personnel (Training, Utilities, Rentals, etc.)	275,355	175,350	177,980	180,650	183,360	186,110	188,902	191,735	194,611	197,530	200,493	1,876,722
Building Maintenance												
Rodent Abatement in Sewers	90,000	90,000	91,350	92,720	94,111	95,523	96,956	98,410	99,886	101,384	102,905	963,245
Indirect Costs (Tr to G.F.)	1,229,814	1,248,214	1,266,608	1,301,361	1,337,205	1,374,180	1,409,745	1,446,294	1,483,857	1,522,463	1,562,144	13,952,070
<b>Subtotal, Operating Costs</b>	<b>7,436,609</b>	<b>7,511,005</b>	<b>7,790,093</b>	<b>7,989,908</b>	<b>8,195,306</b>	<b>8,406,455</b>	<b>8,620,946</b>	<b>8,841,309</b>	<b>9,067,711</b>	<b>9,300,326</b>	<b>9,539,335</b>	<b>85,262,394</b>

Sanitary Sewers Ten-Year Plan  
 Approved FY 2020 – FY 2029 Capital, Operating and Debt Service  
 (continued)

Capital Projects	FY 2019	FY 2020 Approved	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Total FY 20-29
Reconstruction and Extension of Sanitary Sewers	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	9,000,000
Wet Weather Management Facility	0		0	0	0	0	0	0	0	0		0
Green Infrastructure*	0	350,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	1,925,000
City Standard Construction Specs	0	0	0	0	0	0	0	0	0	0	0	0
Citywide Sewershed I&I	0	0	3,075,000	2,850,000	4,000,000	0	0	0	0	0	0	9,925,000
Combined Sewer Assessment and Rehab	1,850,000	0	2,550,000	2,550,000	0	0	0	0	0	0	0	5,100,000
AlexRenew WWTP Expansion	0	0	0	0	0	0	12,850,000	13,250,000	13,750,000	0	0	39,850,000
Four Mile Run Sanitary Sewer Repair	0	0	0	0	0	0	0	0	0	0	0	0
Combined Sewer Overflow Planning	0	0	0	0	0	0	0	0	0	0	0	0
Development Studies (Landmark Sanitary Infrastructure)	100,000	0	0	0	0	0	0	0	0	0	0	0
Capital Support of CSO Mitigation Projects		1,355,990	0	0	0	0	0	0	0	0	0	1,355,990
Capitalized DPI Positions	606,072	795,879	835,700	877,500	921,400	967,500	1,015,900	1,066,700	1,120,000	1,176,000	1,234,800	10,011,379
Capitalize Sustainability Coordinator	51,520	51,324	54,700	56,300	58,000	59,700	61,500	63,400	65,300	67,200	69,200	606,624
<i>Subtotal, Capital Projects</i>	<i>28,807,592</i>	<i>3,453,193</i>	<i>7,590,400</i>	<i>7,408,800</i>	<i>6,054,400</i>	<i>2,102,200</i>	<i>15,002,400</i>	<i>15,455,100</i>	<i>16,010,300</i>	<i>2,318,200</i>	<i>2,379,000</i>	<i>77,773,993</i>
Debt Service	FY 2019	FY 2020 Proposed	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	Total FY 20-29
<i>Debt Service Payments</i>	<i>2,818,862</i>	<i>2,603,349</i>	<i>2,678,122</i>	<i>2,546,696</i>	<i>1,762,141</i>	<i>2,017,936</i>	<i>2,157,556</i>	<i>3,091,754</i>	<i>4,220,385</i>	<i>4,104,262</i>	<i>4,221,934</i>	<i>29,404,134</i>
<b>Total Expenditures, All Categories</b>	<b>39,063,063</b>	<b>13,567,547</b>	<b>18,058,615</b>	<b>17,945,403</b>	<b>16,011,847</b>	<b>12,526,591</b>	<b>25,780,902</b>	<b>27,388,163</b>	<b>29,298,395</b>	<b>15,722,788</b>	<b>16,140,269</b>	<b>192,440,521</b>

## ALEXRENEW WASTEWATER TREATMENT PLANT CAPACITY

DOCUMENT SUBSECTION: Sanitary Sewers  
 MANAGING DEPARTMENT: Department of Transportation  
 and Environmental Services

PROJECT LOCATION: 1500 Eisenhower Ave.  
 REPORTING AREA: Southwest Quadrant

PRIMARY STRATEGIC THEME: Theme 8: Environmental  
 Sustainability

PROJECT CATEGORY: 3  
 ESTIMATE USEFUL LIFE: 21 - 25 Years

AlexRenew Wastewater Treatment Plant Capacity													
	A (B + M) Total Budget & Financing	B Through 2019	C FY 2020	D FY 2021	E FY 2022	F FY 2023	G FY 2024	H FY 2025	I FY 2026	J FY 2027	K FY 2028	L FY 2029	M (C:L) Total FY 2020 - FY 2029
Expenditure Budget	39,850,000	0	0	0	0	0	0	12,850,000	13,250,000	13,750,000	0	0	39,850,000
Financing Plan													
GO Bonds (Sanitary)	29,850,000	0	0	0	0	0	0	4,850,000	12,250,000	12,750,000	0	0	29,850,000
Sanitary Sewer Fund	10,000,000	0	0	0	0	0	0	8,000,000	1,000,000	1,000,000	0	0	10,000,000
Financing Plan Total	39,850,000	0	0	0	0	0	0	12,850,000	13,250,000	13,750,000	0	0	39,850,000
Additional Operating Impact	0	0	0	0	0	0	0	0	0	0	0	0	0

### CHANGES FROM PRIOR YEAR CIP

Funding moved to FY 2025 – FY 2027.

### PROJECT DESCRIPTION & JUSTIFICATION

The City's Department of Planning and Zoning (P&Z) has developed growth forecasts for build-out conditions (post year 2040) as presented in the Sanitary Sewer Master Plan. Based on these forecasts, the City is projected to exceed its wastewater allocation at the Alexandria Renew Enterprises (AlexRenew) Water Resource Recovery Facility by approximately 4 million gallons per day (mgd) beginning sometime after 2040.

AlexRenew has indicated that their facility can be expanded/upgraded to treat this additional 4 mgd at a total capital cost of \$39.85 million. This cost is based on hydraulically expanding the plant at the same time as other anticipated upgrades are needed (as existing process equipment reaches the end of its useful life). Although the need for an additional 4 mgd is not anticipated until after 2040, it would be more cost-effective to perform the hydraulic expansion while other upgrades are occurring based on the timeline provided by AlexRenew.

The costs provided do not include any additional nutrient (phosphorous and nitrogen) loads associated with these flows, which the City will reach around 2040. Options for addressing these added nutrient loads have been identified in the Sanitary Sewer Master Plan and will continue to be evaluated. Funding for this project is not planned until FY 2025 – 2027. Recent discussions with AlexRenew have indicated that flows are increasing at their wastewater treatment facility at a lower rate than what was projected in the Sanitary Sewer Master Plan. However, development/redevelopment projections may need to be adjusted in flow models to account for changes in development densities in amendments to several small area plans. The City is continuing to work with AlexRenew to monitor the flows at the treatment facility. In addition, the City is in the process of updating its Sanitary Sewer Master Plan, which will be completed in spring 2020. This update to the Plan will reevaluate wastewater treatment capacity needs at AlexRenew, both in terms of how much capacity (hydraulic and nutrient) and timing of when this capacity is needed.

### EXTERNAL OR INTERNAL ADOPTED PLAN OR RECOMMENDATION

Sanitary Sewer Master Plan

### ADDITIONAL OPERATING IMPACTS

No additional operating impacts identified at this time.

## CAPITAL SUPPORT OF CSO MITIGATION PROJECTS

DOCUMENT SUBSECTION: Sanitary Sewers  
 MANAGING DEPARTMENT: Department of Transportation  
 and Environmental Services

PROJECT LOCATION: Citywide  
 REPORTING AREA: Citywide

PRIMARY STRATEGIC THEME: Theme 8: Environmental  
 Sustainability

PROJECT CATEGORY: 1  
 ESTIMATE USEFUL LIFE: Varies

Capital Support of CSO Mitigation Projects													
	A (B + M) Total Budget & Financing	B Through 2019	C FY 2020	D FY 2021	E FY 2022	F FY 2023	G FY 2024	H FY 2025	I FY 2026	J FY 2027	K FY 2028	L FY 2029	M (C:L) Total FY 2020 - FY 2029
Expenditure Budget	1,355,990	0	1,355,990	0	0	0	0	0	0	0	0	0	1,355,990
Financing Plan													
Sanitary Sewer Fund	1,355,990	0	1,355,990	0	0	0	0	0	0	0	0	0	1,355,990
Financing Plan Total	1,355,990	0	1,355,990	0	0	0	0	0	0	0	0	0	1,355,990
Additional Operating Impact	0	0	0	0	0	0	0	0	0	0	0	0	0

### CHANGES FROM PRIOR YEAR CIP

This is a new project added to the CIP in FY 2020.

### PROJECT DESCRIPTION & JUSTIFICATION

As part of legislation passed by the 2017 Virginia General Assembly, the City has been required to accelerate its efforts to address combined sewer discharges from all four outfalls in the City. The bill mandated combined sewer overflow mitigation and construction at all outfalls be completed no later than July 1, 2025.

In order to meet this very aggressive mandated schedule for completion of the project, an agreement was reached with AlexRenew on May 1, 2018 that transferred the ownership of the CSO outfalls, along with the responsibility for construction and financing of future infrastructure to meet the timeline mandated by the General Assembly, to AlexRenew. AlexRenew, also known as Alexandria Sanitation Authority, is a City created rate payer funded public body that owns and operates the large interceptors, pump stations and wastewater treatment facility in the City. The outfall transfer between the City and AlexRenew was finalized at the June 23, 2018 City Council Public Hearing.

The approval letter in response to jointly submitted Long Term Control Plan Update (LTCPU) from VDEQ stated that AlexRenew will become the responsible party for all CSO permit conditions and requirements effective July 1, 2018. AlexRenew is currently in the preliminary engineering phase of the project, which is currently estimated at \$385 million. AlexRenew will be funding the project through issuance of rate-payer funded revenue bonds, along with any potential funding provided by the State.

Although AlexRenew has taken ownership of the CSOs and responsibility for the outfall mitigation projects outlined in the LTCPU, the City is still responsible for supporting AlexRenew's efforts to complete these mitigation projects on the schedule set by the General Assembly. This funding provides support for the CSO mitigation efforts, including coordination on development special use permits and other City permits, stakeholder coordination, public meetings and City Council updates, data collection, historical records research and other associated work associated with regulatory review and oversight.

### EXTERNAL OR INTERNAL ADOPTED PLAN OR RECOMMENDATION

Sanitary Sewer Master Plan

### ADDITIONAL OPERATING IMPACTS

No additional operating impacts identified at this time.

## CITYWIDE SEWERSHED INFILTRATION & INFLOW

DOCUMENT SUBSECTION: Sanitary Sewers  
 MANAGING DEPARTMENT: Department of Transportation  
 and Environmental Services

PROJECT LOCATION: Citywide  
 REPORTING AREA: Citywide

PRIMARY STRATEGIC THEME: Theme 8: Environmental  
 Sustainability

PROJECT CATEGORY: 2  
 ESTIMATE USEFUL LIFE: 30+ Years

Citywide Sewershed Infiltration & Inflow													
	A (B + M) Total Budget & Financing	B Through 2019	C FY 2020	D FY 2021	E FY 2022	F FY 2023	G FY 2024	H FY 2025	I FY 2026	J FY 2027	K FY 2028	L FY 2029	M (C:L) Total FY 2020 FY 2029
Expenditure Budget	29,786,440	19,861,440	0	3,075,000	2,850,000	4,000,000	0	0	0	0	0	0	9,925,000
Financing Plan													
GO Bonds (Sanitary)	15,750,000	15,750,000	0	0	0	0	0	0	0	0	0	0	0
Sanitary Sewer Fund	14,036,440	4,111,440	0	3,075,000	2,850,000	4,000,000	0	0	0	0	0	0	9,925,000
Financing Plan Total	29,786,440	19,861,440	0	3,075,000	2,850,000	4,000,000	0	0	0	0	0	0	9,925,000
Additional Operating Impact	0	0	0	0	0	0	0	0	0	0	0	0	0

### CHANGES FROM PRIOR YEAR CIP

Planned funding moved to FY 2021 – FY 2023.

### PROJECT DESCRIPTION & JUSTIFICATION

Portions of the sanitary sewer system located in the City are aging, deteriorated and require maintenance. During wet weather, infiltration and inflow into the sanitary sewers can result in over-capacity conditions that cause overflows into the environment or customers' basements. This CIP program provides for evaluation, remediation and rehabilitation of infiltration/inflow and deficient conditions for the sanitary sewer system across the entire city.

Rehabilitation of sanitary sewers and manholes in the Holmes Run Sewersheds, which impacts the Alexandria West, Landmark/Van Dorn West, and Seminary Hill/Strawberry Hill areas was completed in FY 2018. Following completion of these rehabilitation projects, post-construction flow monitoring was initiated at the end of FY 2018 and will be conducted for one year to assess the amount of infiltration and inflow removed as a result of the rehabilitation. In addition, this program will be phased into broader infrastructure issues related to infiltration and inflow across the entire sanitary sewer system to ensure dependable service in the future.

Completion of this project will help mitigate sanitary sewer overflows. Additionally, it will improve the City's sanitary sewer infrastructure and extend the infrastructure's useful life by reducing the potential of pipe collapse and other emergency repairs.

### EXTERNAL OR INTERNAL ADOPTED PLAN OR RECOMMENDATION

Sanitary Sewer Master Plan

### ADDITIONAL OPERATING IMPACTS

No additional operating impacts identified at this time.

## COMBINED SEWER ASSESSMENT & REHABILITATION

DOCUMENT SUBSECTION: Sanitary Sewers  
MANAGING DEPARTMENT: Department of Transportation  
and Environmental Services

PROJECT LOCATION: Old Town CSO Area  
REPORTING AREA: Old Town

PRIMARY STRATEGIC THEME: Theme 8: Environmental  
Sustainability

PROJECT CATEGORY: 3  
ESTIMATE USEFUL LIFE: 30+ Years

Combined Sewer Assessment & Rehabilitation													
	A (B + M) Total Budget & Financing	B Through 2019	C FY 2020	D FY 2021	E FY 2022	F FY 2023	G FY 2024	H FY 2025	I FY 2026	J FY 2027	K FY 2028	L FY 2029	M (C:L) Total FY 2020 - FY 2029
Expenditure Budget	8,800,000	3,700,000	0	2,550,000	2,550,000	0	0	0	0	0	0	0	5,100,000
Financing Plan													
GO Bonds (Stormwater)	3,700,000	3,700,000	0	0	0	0	0	0	0	0	0	0	0
Sanitary Sewer Fund	5,100,000	0	0	2,550,000	2,550,000	0	0	0	0	0	0	0	5,100,000
Financing Plan Total	8,800,000	3,700,000	0	2,550,000	2,550,000	0	0	0	0	0	0	0	5,100,000
Additional Operating Impact	0	0	0	0	0	0	0	0	0	0	0	0	0

### CHANGES FROM PRIOR YEAR CIP

No changes from previous CIP.

### PROJECT DESCRIPTION & JUSTIFICATION

This project provides for the condition assessment of sewers in the combined sewer service area in Old Town and remediation of structurally deficient sewers.

The City will perform condition assessments including cleaning and televising lines, assessing information to determine condition of lines, and determining if rehabilitation is needed. Structurally deficient sewers will be identified, and the results of the field work will be evaluated to develop remediation projects which are expected to include the relining of sewers and manhole repairs. Project funding totals \$8.8 million. The assessment phase of this project was initiated in FY 2019. Project funding may be adjusted following the assessment period based on the condition of the sewers and need for rehabilitation.

In addition to the health and environmental benefits of this project, completion of this project will repair and renew the City's sewer infrastructure, extend the infrastructure's useful life, and reduce the number of pipe collapses and other emergency repairs.

The City is responsible for the ownership and maintenance of the sewers located in the combined sewer service area. The combined sewer outfalls are owned by Alexandria Renew Enterprises (AlexRenew). AlexRenew is also responsible for compliance with requirements of the combined sewer system permit issued by the Department of Environmental Quality and for complying with the legislation passed by the Virginia General Assembly in 2017, which requires that combined sewer discharges be mitigated to comply with the legislation by July 1, 2025. The City continues to work with AlexRenew to ensure this deadline is met.

### EXTERNAL OR INTERNAL ADOPTED PLAN OR RECOMMENDATION

N/A

### ADDITIONAL OPERATING IMPACTS

No additional operating impacts identified at this time.



## HOLMES RUN TRUNK SEWER

DOCUMENT SUBSECTION:	Sanitary Sewers	PROJECT LOCATION:	AlexRenew Plant to the City/Fairfax Border
MANAGING DEPARTMENT:	Department of Transportation and Environmental Services	REPORTING AREA:	Landmark/Van Dorn
PRIMARY STRATEGIC THEME:	Theme 8: Environmental Sustainability	PROJECT CATEGORY:	3
		ESTIMATE USEFUL LIFE:	30+ Years

Holmes Run Trunk Sewer													
	A (B + M) Total Budget & Financing	B Through 2019	C FY 2020	D FY 2021	E FY 2022	F FY 2023	G FY 2024	H FY 2025	I FY 2026	J FY 2027	K FY 2028	L FY 2029	M (C:L) Total FY 2020 - FY 2029
Expenditure Budget	9,002,000	9,002,000	0	0	0	0	0	0	0	0	0	0	0
Financing Plan													
Cash Capital	500,000	500,000	0	0	0	0	0	0	0	0	0	0	0
GO Bonds (Sanitary)	4,100,000	4,100,000	0	0	0	0	0	0	0	0	0	0	0
Sanitary Sewer Fund	4,402,000	4,402,000	0	0	0	0	0	0	0	0	0	0	0
Financing Plan Total	9,002,000	9,002,000	0	0	0	0	0	0	0	0	0	0	0
Additional Operating Impact	0	0	0	0	0	0	0	0	0	0	0	0	0

### CHANGES FROM PRIOR YEAR CIP

No changes from previous CIP.

### PROJECT DESCRIPTION & JUSTIFICATION

This project provides for an increase in capacity in the Holmes Run Trunk Sewer line, which is owned and operated by Alexandria Renew Enterprises (AlexRenew). Both the City and Fairfax County send wastewater flows to this sewer and share in the capacity of this sewer.

Increased capacity is required to support development occurring in the Eisenhower Valley, as well as future development and redevelopment in the West End. In 2008, the western portion of the trunk sewer from I-395 to Cameron Run was lined for additional capacity. Additional follow-up engineering and analysis has determined that pipe lining alone will not solve long term capacity issues.

Engineering analysis between the City, Fairfax County, and AlexRenew was completed in FY 2017 which evaluated capacity issues in the Holmes Run Trunk Sewer upstream of I-395, which provided a recommendation for addressing the remaining capacity issues in this sewer by enlargement of an existing parallel Fairfax County Holmes Run Sewer to divert flows from the AlexRenew Holmes Run Trunk Sewer. A subsequent study was completed in FY 2019 that confirms construction of this sewer will have sufficient capacity to serve the proposed growth as anticipated in the Eisenhower West Small Area Plan. This study also included analysis of the Fairfax County Backlick Sewers, located in the City, and concluded that no infrastructure improvements would be required.

A total of \$9.0 million from the sanitary sewer fund has been budgeted in prior fiscal years for this project. City will coordinate with AlexRenew and Fairfax County regarding implementation of projects, along with cost sharing to resolve remaining capacity issues on the Holmes Run Trunk Sewer. Depending on the outcome of these discussions, additional funding may be required in future years for both design and construction.

Completion of this project will improve the City's sanitary sewer infrastructure, which will help mitigate any potential sanitary sewer overflows during periods of wet weather. Additionally, the project will improve the City's readiness for accommodating quality economic growth.

### EXTERNAL OR INTERNAL ADOPTED PLAN OR RECOMMENDATION

Sanitary Sewer Master Plan

### ADDITIONAL OPERATING IMPACTS

No additional operating impacts identified at this time.

## RECONSTRUCTIONS & EXTENSIONS OF SANITARY SEWERS

DOCUMENT SUBSECTION: Sanitary Sewers  
 MANAGING DEPARTMENT: Department of Transportation  
 and Environmental Services

PROJECT LOCATION: Citywide  
 REPORTING AREA: Citywide

PRIMARY STRATEGIC THEME: Theme 8: Environmental  
 Sustainability

PROJECT CATEGORY: 1  
 ESTIMATE USEFUL LIFE: 30+ Years

Reconstructions & Extensions of Sanitary Sewers													
	A (B + M) Total Budget & Financing	B Through 2019	C FY 2020	D FY 2021	E FY 2022	F FY 2023	G FY 2024	H FY 2025	I FY 2026	J FY 2027	K FY 2028	L FY 2029	M (C:L) Total FY 2020 - FY 2029
Expenditure Budget	23,592,959	14,592,959	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	9,000,000
Financing Plan													
Cash Capital	2,146,105	2,146,105	0	0	0	0	0	0	0	0	0	0	0
GO Bond Interest Earnings	250,000	250,000	0	0	0	0	0	0	0	0	0	0	0
GO Bonds (Sanitary)	3,473,708	3,473,708	0	0	0	0	0	0	0	0	0	0	0
Sanitary Sewer Fund	17,723,146	8,723,146	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	9,000,000
Financing Plan Total	23,592,959	14,592,959	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	9,000,000
Additional Operating Impact	0	0	0	0	0	0	0	0	0	0	0	0	0

### CHANGES FROM PRIOR YEAR CIP

No changes from previous CIP.

### PROJECT DESCRIPTION & JUSTIFICATION

This project provides for the construction of new sewer mains, the replacement and rehabilitation of old lines as needed, repairs to City streets disturbed by sewer line repairs, and reconstruction and funds for the City's share of the cost of sewer extensions required for development.

Prior year balances along with annual funding in FY 2020 will be utilized to fund multiple projects in this request. Several projects are in early planning stages, while others are currently under design and construction. Obstacles to construction may include the moving of buried utility lines, such as power, water, and gas lines by the various utility owners that if not moved would interfere with the construction.

Projects currently under study/design and scheduled for construction in FY 2020 include:

- Beauregard Street Sanitary Sewer Repair
- Wheeler Avenue Sewer Lining
- Fillmore Street Sewer Replacement Project
- Franklin Street Sewer Replacement Project
- Rucker Place Sewer Replacement

Completion of these projects improves the City's sanitary sewer infrastructure while reducing the frequency of unplanned repairs due to deferred maintenance.

### EXTERNAL OR INTERNAL ADOPTED PLAN OR RECOMMENDATION

Sanitary Sewer Master Plan

### ADDITIONAL OPERATING IMPACTS

No additional operating impacts identified at this time.